

ABSTRACT

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143 An integrated system for commercial production of a heterologous
144 protein in transgenic plants under conditions of controlled environment
145 agriculture (CEA) is provided. CEA comprises growth of plants under
146 defined environmental conditions, preferably in a greenhouse, to optimize
147 growth of the transgenic plant as well as expression of the gene encoding
148 the heterologous protein. The transgenic plants used in the present
149 invention are transformed with an expression vector comprising a CEA
150 promoter operably linked to a gene encoding the heterologous protein of
151 interest, wherein the CEA promoter is selected to maximize heterologous
152 protein production under the defined environmental conditions of CEA.

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